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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/971,989      | 10/04/2001  | Lance W. Russell     | 10001375-1          | 3296             |

7590 01/24/2005

HEWLETT-PACKARD COMPANY  
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EXAMINER

ELMORE, REBA I

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|          | 2187         |

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/971,989             | RUSSELL, LANCE W.   |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Reba I. Elmore         | 2187                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 24 December 2004.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,8,13,14,16,18-21,23-27,31,33 and 35-38 is/are rejected.

7) Claim(s) 2-7, 9-12, 15, 17, 22, 28-30, 32 and 34 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)      4) Interview Summary (PTO-413)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)      Paper No(s)/Mail Date. \_\_\_\_\_.  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-38 are presented for examination.

### *Specification*

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Objections*

3. The objection to the claims is **withdrawn** due to the amendment.

### *Double Patenting*

4. The rejection of claims 1-38 based on nonstatutory double patenting with application number 09/971,135 is **withdrawn** due to the filing of the terminal disclaimer.

### *35 USC § 102*

5. The rejection of claims 1, 8, 13-14, 16, 18-21, 23-27, 31, 33 and 35-38 as being anticipated by Morioka et al. is **maintained** and repeated below.
6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. Claims 1, 8, 13-14, 16, 18-21, 23-27, 31, 33 and 35-38 are rejected under 35 USC 102(e) as being anticipated by Morioka et al.

8. Morioka teaches the invention (claims 1, 24 and 38) including a multi-computer system, comprising a plurality of local nodes interconnected by a shared memory, each local node comprising:

a local processor (e.g., see Figure 1);

a local memory (e.g., see Figure 1);

a local communications protocol stack as network protocol (e.g., see col. 8, line 31 to col. 9, line 7); and,

a shared memory interface system operable to provide a local shared memory network between the local nodes, and a global shared memory network between the local nodes and one or more remote nodes by capturing packets from the local communications protocol stacks and routing the captured packets over the shared memory (e.g., see Figures 15-16 and col. 20, line 21 to col. 24, line 24).

As to claims 8 and 35-37, Morioka teaches one or more local nodes comprise one or more physical network adapters for connection to one or more remote nodes as part of the overall network configuration such as a NUMA network, a DASH system or a network using SCI protocol (e.g., see col. 1, line 10 to col. 4, line 39).

As to claims 13 and 14, Morioka teaches the shared memory interface system on each local node supports multicast and broadcast transmissions over the shared memory from the local shared memory network and the global shared memory network; a broadcast ring structure and a multicast ring structure are allocated in shared memory for each of the local and global shared memory networks as cluster and inter-cluster communication protocol (e.g., see col. 27, line 55 to col. 8, line 28).

As to claims 16 and 18-20, Morioka teaches the ring structure includes the capability of transmitting and receiving packets as part of the structural capacity (e.g., see Figures 15-16 and col. 20, line 21 to col. 24, line 24).

As to claim 21, Morioka teaches having a read pointer and a write pointer associated with the ring structure as being part of the memory subsystems (e.g., see Figure 16).

As to claims 23, 25-27, 31 and 33, Morioka teaches the shared memory is implemented by a global shared memory facility, a distributed shared memory facility or a logically shared memory facility as part of the overall network configuration such as a NUMA network, a DASH system or a network using SCI protocol (e.g., see col. 1, line 10 to col. 4, line 39).

*Indicated Allowability*

9. Claims 2-7, 9-12, 15, 17, 22, 28-30, 32 and 34 are considered to read over the art of record. These claims are allowable over the art of record but are objected to as being dependent upon rejected independent claims. Specifically, the art of record does not show the given structure with either the local and global shared memory virtual adapters nor with an open shortest path first routing protocol.

*Response to Applicant's Remarks*

10. Applicant's arguments filed December 24, 2004 have been fully considered but they are not persuasive.

11. As to the arguments of the reference not teaching the captured packets being routed over the shared memory, the claim language is very broad and does not indicate an actual activity

involving the shared memory. Memory is used to read or write data according to requests to the memory, therefor, a limitation claiming a memory activity as 'over the shared memory' is not further limiting.

***Action is made Final***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (571) 272-4192. The examiner can normally be reached on M-TH from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2187, Donald Sparks, can be reached for general questions concerning this application at (571) 272-4201. Additionally, the official fax phone number for the art unit is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center central telephone number is (571) 272-2100.



Reba I. Elmore  
Primary Patent Examiner  
Art Unit 2187

January 19, 2005